

FIG. 1

1/13

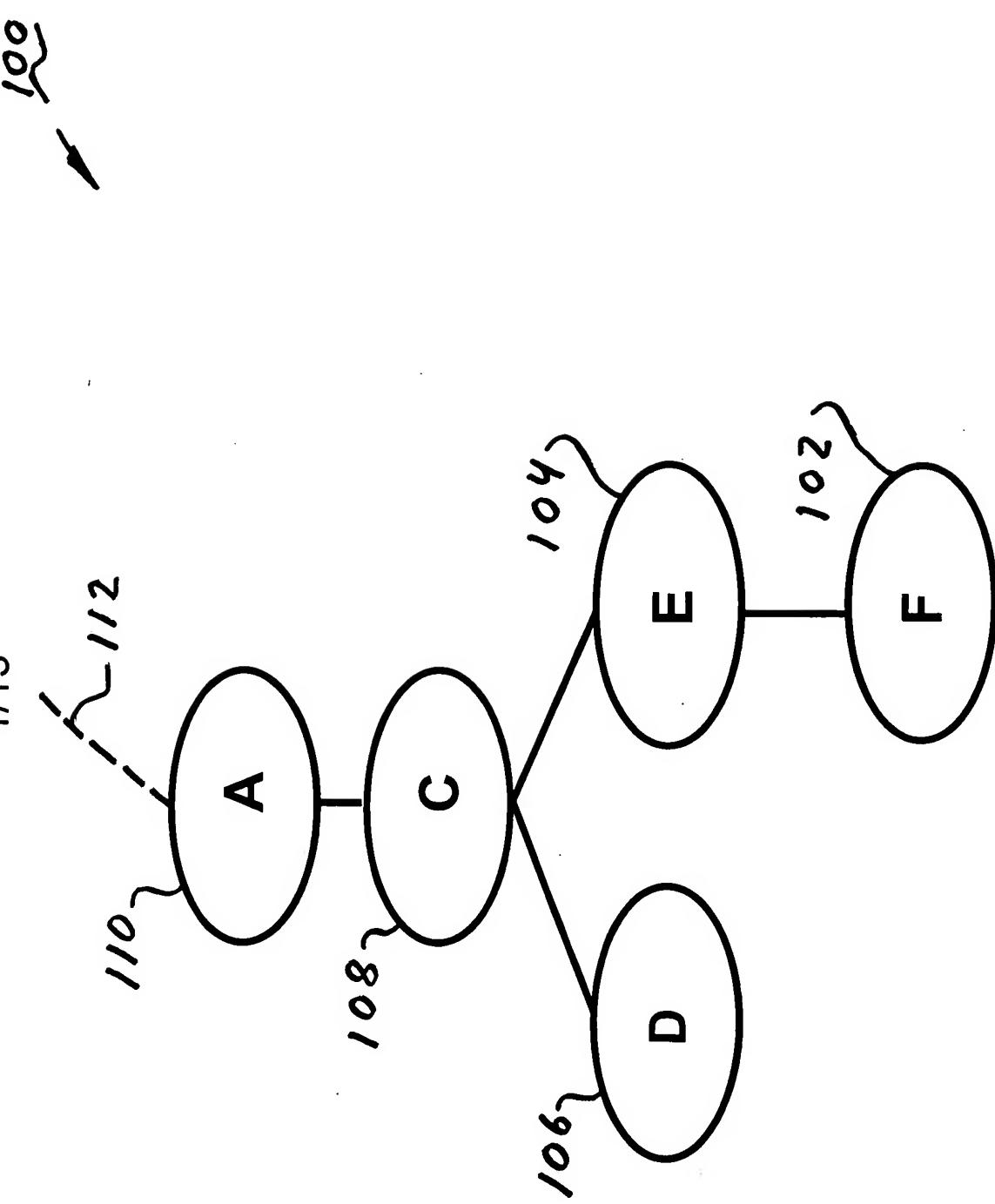


FIG. 2A

2/13

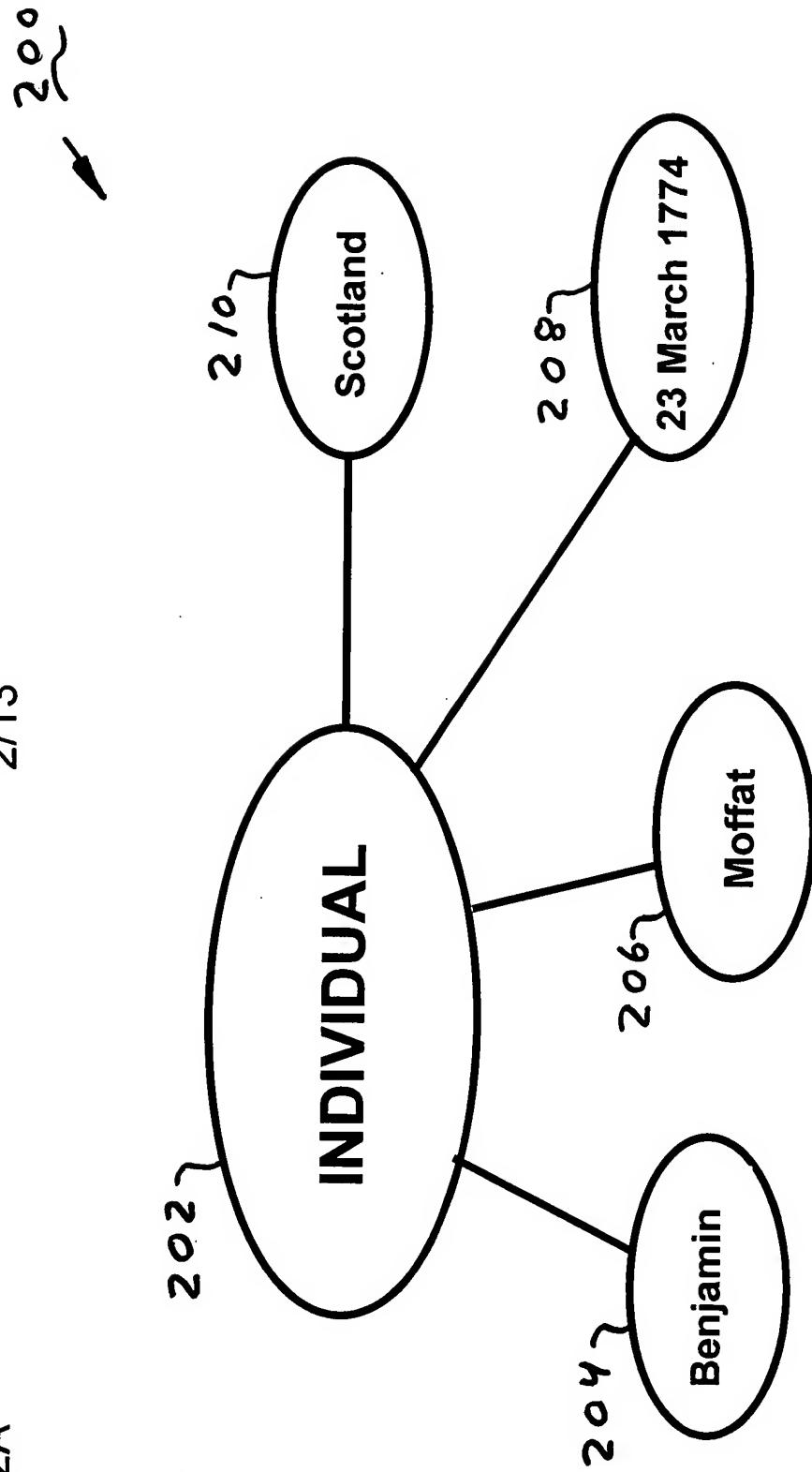


FIG. 2B

3/13

250

252 PV-ID# 5
254 (60) Benjamin MOFFAT
256 Bir:
258 (57) Date: 23 MAR 1774
260 (90) Place: Dalkeith, Midlothian, Scotland,
Note:
262 (51) Family records and Temple Index Bureau
give birth 23 Mar 1774, no parents.
264 Dea:
266
268 (57) Date: 22 AUG 1826
270 (90) Place: Newton, Midlothian, Scotland,
Src:
272 (45) Newton Parish Registers
Established Church of Scotland
274 Bur:
276
278 (57) Date: 23 AUG 1826
280 (90) Place: Newton, Midlothian, Scotland,

FIG. 3A

4/13

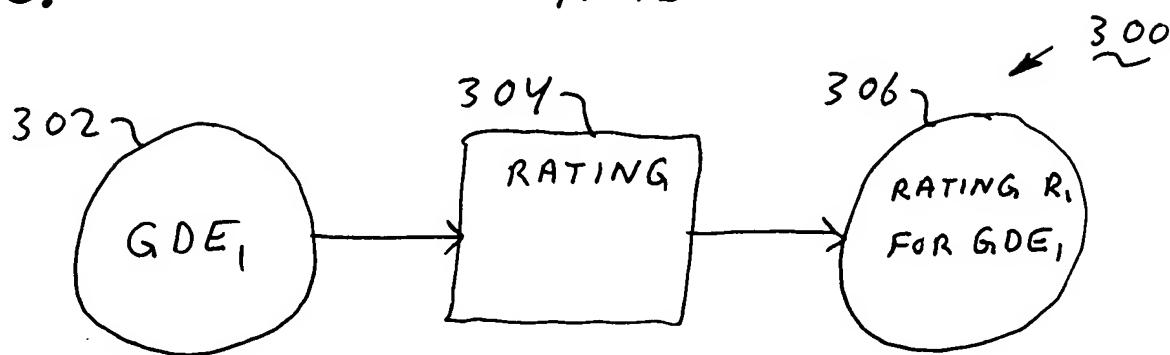


FIG. 3B

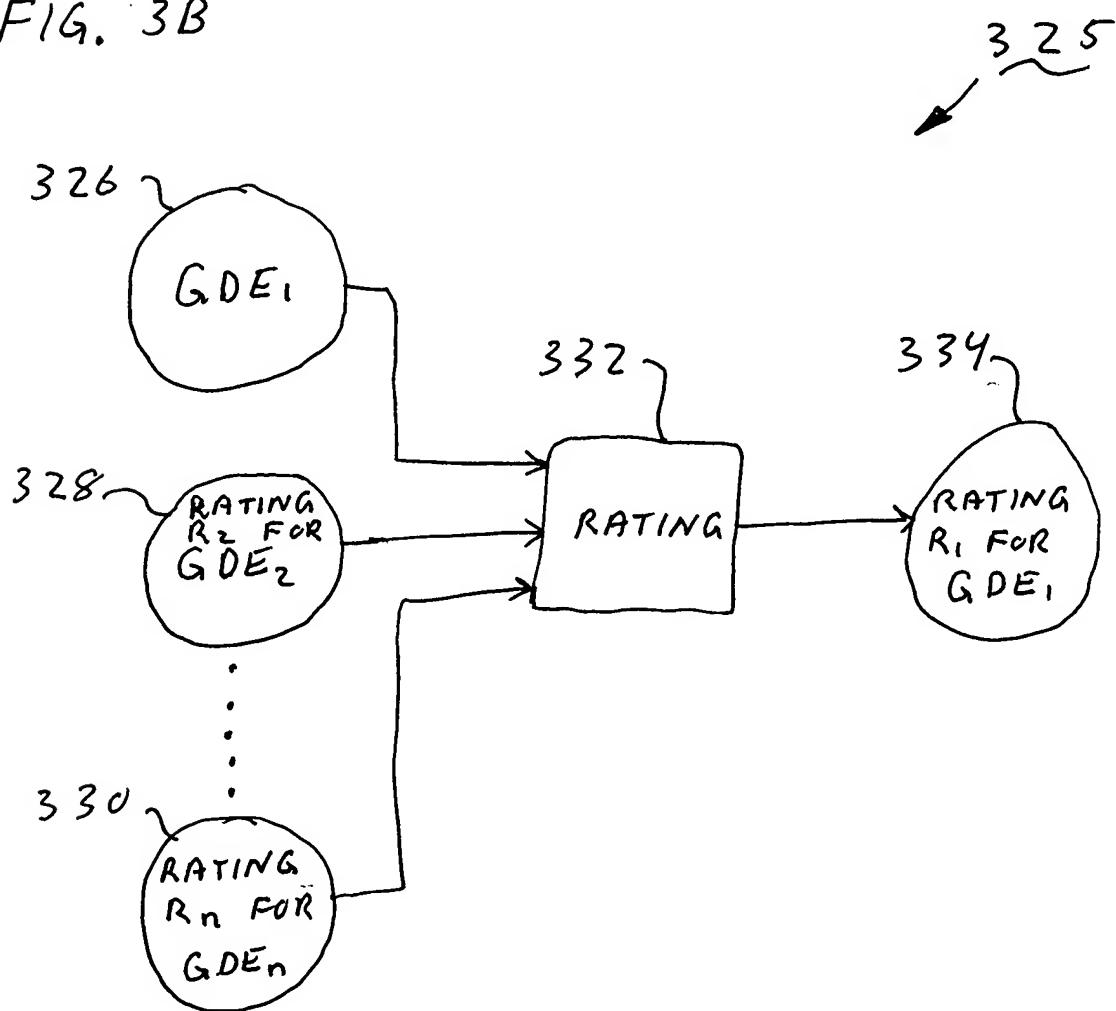


FIG. 3C

5/13

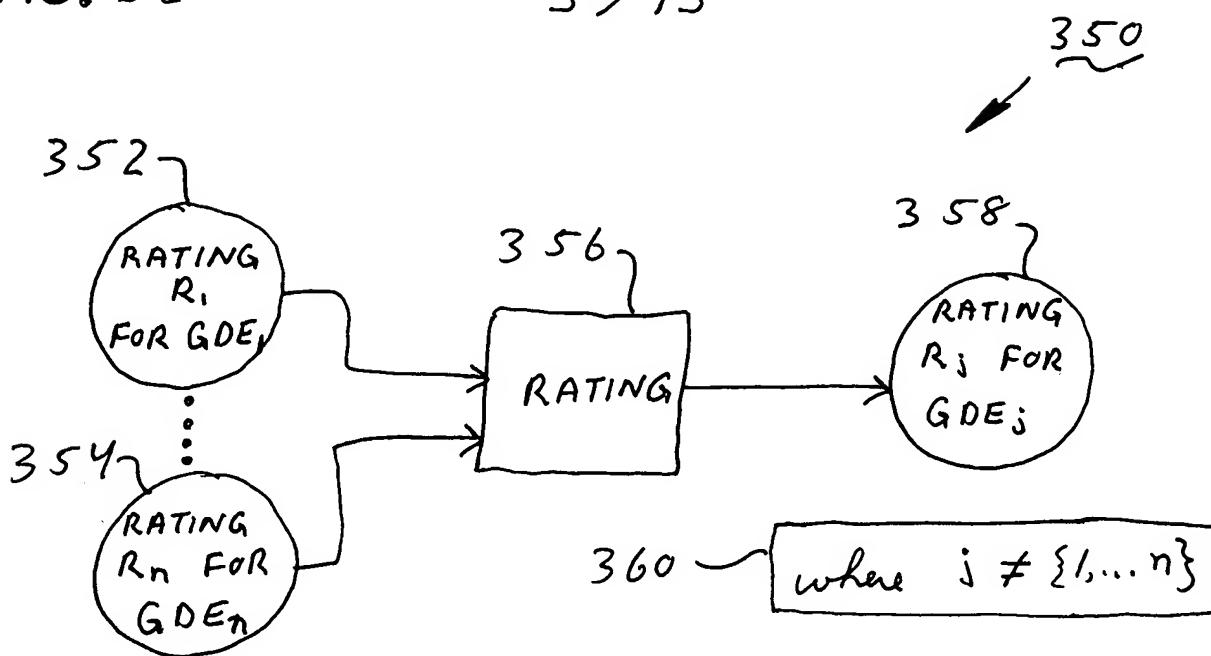


FIG. 3D

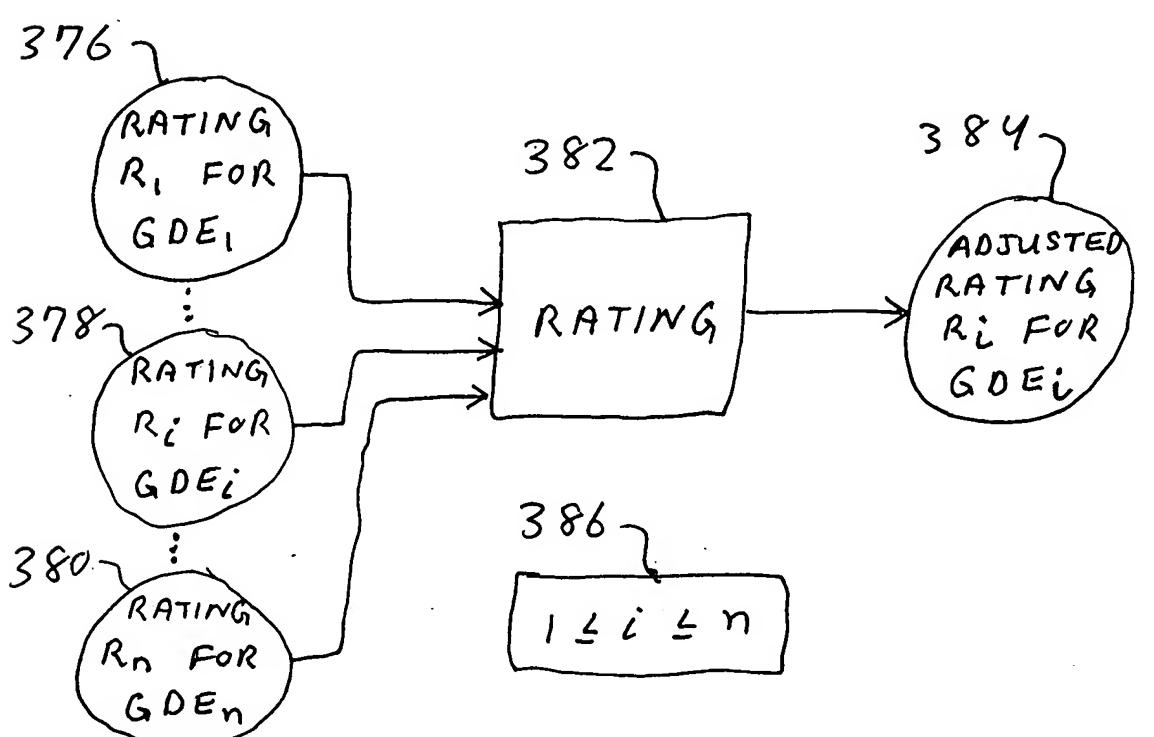


FIG. 4

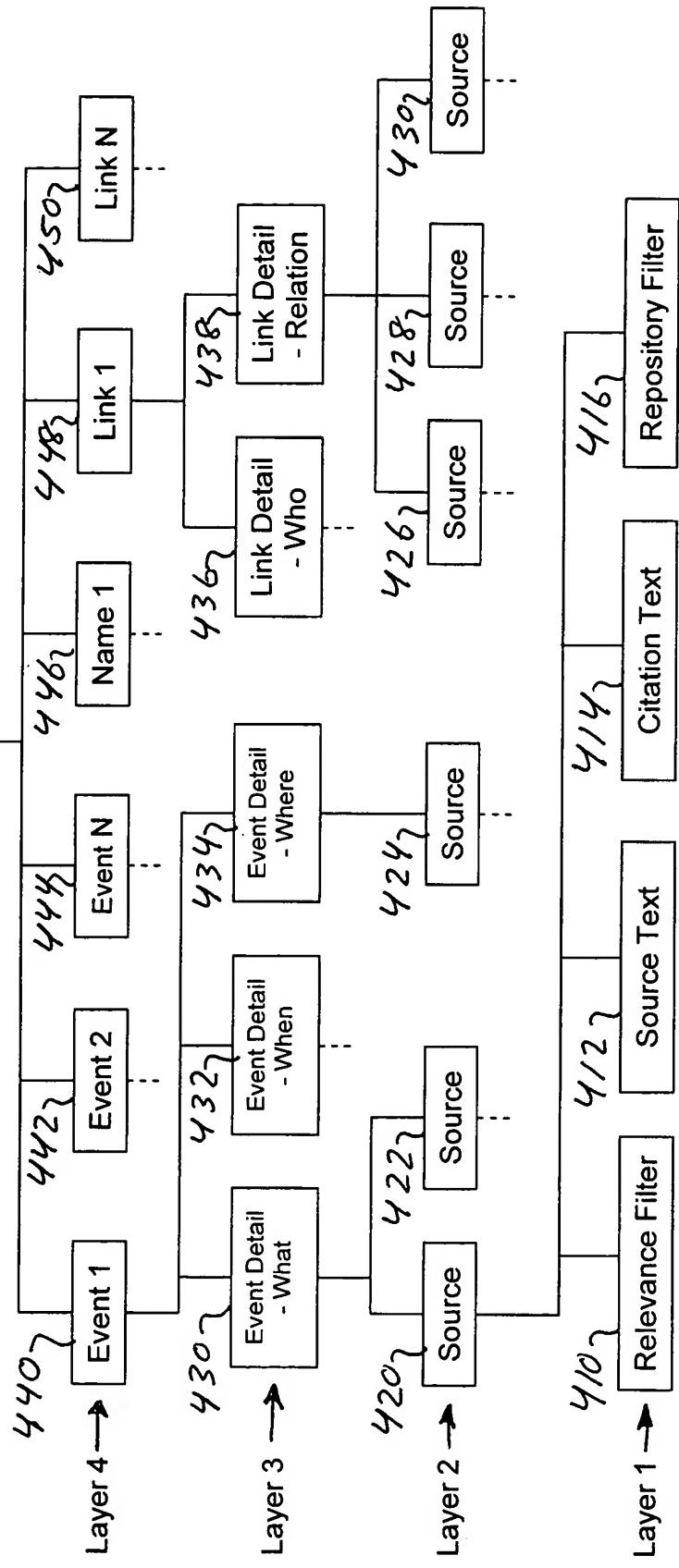
6/13

400

4027

Layer 5 →

Individual



Title: METHODS AND APPARATUSES FOR PROCESSING

GENEALOGICAL DATA

Inventors: Daniel K. Tebbs et al.

Docket No.: 102703 P001

Express Mail No.: ET43871134US

Filing Date: November 26, 2003

Page 7 of 13

206-447-1336

FIG. 5

7/13

5027

| Repository | Points |
|---------------------------------------|--------|
| Ancestral File | 20% |
| Ancestry - World Tree | 40% |
| Family Tree Maker - World Family Tree | 40% |
| Pedigree Resource File | 25% |
| Ordinance Index | 80% |
| International Genealogical Index | 25% |
| Daughters of the American Revolution | 100% |
| Not Recognized | 50% |
| Null (= 0 or 1 char) | 0% |

500

5047

5247

RepositoryConfidencePoints = RepositoryMapFunction(SourceRepository) * 30%

500

Title: METHODS AND APPARATUSES FOR PROCESSING

GENEALOGICAL DATA

Inventors: Daniel K. Tebbs et al.

Docket No.: 102703 P001

Express Mail No.: ET437871134US

Filing Date: November 26, 2003

Page 8 of 13

206-447-1336

FIG. 6

8/13

6027

6047

6000

| Source Type | Event/Link Type | | | |
|------------------------|-----------------|-------------|----------|-------|
| | Birth | Christening | Marriage | Death |
| 620 Birth Record | 100% | 95% | 0% | 0% |
| 622 Christening Record | 95% | 100% | 0% | 0% |
| 624 Marriage Record | 50% | 50% | 100% | 0% |
| 626 Betrothal/Engage | 50% | 50% | 85% | 0% |
| 628 Death Record | 25% | 25% | 50% | 100% |
| 630 Burial Record | 25% | 25% | 50% | 95% |
| 632 Not Recognized | 50% | 50% | 50% | 50% |
| 634 Not Specified | 30% | 30% | 30% | 30% |

606 608 610 612 614

TypeRelevancePoints = TypeMapFunction(Event/Link Type, Source Type) * 40%

640

Title: METHODS AND APPARATUSES FOR PROCESSING

GENEALOGICAL DATA

Inventors: Daniel K. Tebbs et al.

Docket No.: 102703.P001

Express Mail No.: ET437871134US

Filing Date: November 26, 2003

Page 9 of 13

206-447-1336

FIG. 7A

702

700

9 / 13

$$y = \frac{1}{(1+e^{-x})}$$

704 }

$$\text{SourceLengthPoints} = (1/(1+(e^{(-(SourceLength - 100)/50)})) * 20\%)$$

706 }

$$\text{CitationLengthPoints} = (1/(1+(e^{(-(CitationLength - 75)/20)})) * 10\%)$$

708 }

$$\text{SourceRating} = \text{TypeRelevancePoints} + \text{SourceLengthPoints} + \text{CitationLengthPoints} + \text{RepositoryConfidencePoints}$$

FIG. 7B

10/13

750

7527

SourceRating = (Sigmoid(TitleLength, 20, 10) * 20% +
TextRating * 60%) * SourcePoints

7547

SourceRating = (Sigmoid(TitleLength, 80, 20) * 80%) *
SourcePoints

7567

TextRating = Sigmoid(TextLength, 200, 50)

758

| Source Type | Source Points |
|--------------|---------------|
| Primary | 100% |
| Secondary | 80% |
| Unknown | 80% |
| Questionable | 30% |
| Unreliable | 10% |

FIG. 8

802

800

11/13

EventLinkDetailPoints = ((1/(1+(e^(-(NumberofSources - 1)*2)))) +
Average(SourceRatings)) * 100%

804

WhatDetailPoints = (1/(1+(e^(-(NumberofWhatDetails - 1)*2)))) * 10%

806

WhenDetailPoints = (1/(1+(e^(-(NumberofWhenDetails - 1)*2)))) * 45%

808

WhereDetailPoints = (1/(1+(e^(-(NumberofWhereDetails - 1)*2)))) * 45%

810

EventRating = (WhatDetailPoints + WhenDetailPoints +
WhereDetailPoints) * Average(EventLinkDetailPoints)

FIG. 9

900

12 / 13

902 }

WhoDetailPoints = (1/(1+(e^(-(NumberOfWhoDetails - 1)*2)))) * 50%

904 }

RelationDetailPoints = (1/(1+(e^(-(NumberOfRelationDetails - 1)*2)))) * 50%

906 }

**LinkRating = (WhoDetailPoints + RelationDetailPoints) *
Average(EventLinkDetailPoints)**

FIG. 10

10027

EventSequenceRating = [A, B]

A = 100% if temporal Events are dated in ascending order,
(i.e, Birth, Christening, Marriage, Death, Burial)

B = 50% if temporal Events are not dated in ascending order.

10047

IndividualAccuracyRating = Average(EventRating and LinkRating) *
EventSequencRating

10067

IndividualCompletenessRating = $(1/(1+(e^{-(((\text{NumberOfEventsAndLinks} - 4)*1))))$

10087

IndividualRating = IndividualAccuracyRating * IndividualCompletenessRating

1000